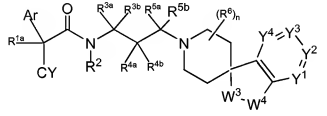
IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-32. Canceled.

33. (Previously Presented) A compound of structural formula I-1:



[I-1]

or a pharmaceutically acceptable salt thereof,

wherein:

R^{1a} is selected from: hydrogen, hydroxyl, and optionally halogen-substituted lower alkyl;

R^2, R^{3a}, R^{3b}, R^{5a} and R^{5b} are each independently selected from: hydrogen and optionally halogen-substituted lower alkyl;

R^{4a} and R^{4b} are each independently selected from: hydrogen, halogen, hydroxyl, and optionally halogen-substituted lower alkyl;

each R^6 is independently selected from: hydrogen, halogen and optionally halogen-substituted lower alkyl;

n is selected from an integer between 1 and 8;

W^3 is selected from: –O– and $–CH_2–$,

W^4 is selected from: $–CH_2–$ and –O–,

with the proviso that W^3 and W^4 are not –O– at the same time;

CY is a cyclic group optionally having one, two or more substituent groups selected from Group α, which cyclic group is selected from:

(1) a 3 to 10-membered aliphatic carbocyclic group,

(2) a 3 to 10-membered aliphatic heterocyclic group,

(3) a 5 or 6-membered aromatic carbocyclic group, and

(4) a 5 or 6-membered aromatic heterocyclic group;

Y^1, Y^2, Y^3 and Y^4 are each independently selected from:

(1) methylene, which optionally has a substituent group selected from Group α, and

(2) a nitrogen atom,

with the proviso that not all of Y^1 to Y^4 are simultaneously nitrogen atoms;

Ar is a mono- or bi-cyclic aromatic carbocyclic or aromatic heterocyclic group which may have one, two or more substituent groups selected from Group β:

each Group α is independently selected from: halogen, hydroxyl, amino, nitro, oxo, mono-lower alkylamino, di-lower alkylamino, optionally halogen-substituted lower alkyl, optionally fluorine-substituted lower alkyloxy, lower cycloalkyloxy, lower alkyloxycabonyl, (lower alkyloxycarbonyl)amino, (lower alkyloxycarbonyl) lower alkylamino, lower alkylcarbonyl, lower alkylcarbonyloxy, (lower alkylcarbonyl)amino, (lower alkylcarbonyl) lower alkylamino, carbamoyl, mono-lower alkylcarbamoyl, di-lower alkylcarbamoyl, carbamoylamino, mono-lower alkylcarbamoylamino, di-lower alkylcarbamoylamino, (mono-lower alkylcarbamoyl) lower alkylamino, (di-lower alkylcarbamoyl) lower alkylamino, carbamoyloxy, mono-lower alkylcarbamoyloxy, di-lower alkylcarbamoyloxy, lower alkylsulfonyl, lower alkylsulfonylamino, sulfamoyl, mono-lower alkylsulfamoyl, di-lower alkylsulfamoyl, sulfamoylamino, (mono-lower alkylsulfamoyl)amino, (di-lower alkylsulfamoyl)amino, (mono-lower alkylsulfamoyl) lower alkylamino and (di-lower alkylsulfamoyl) lower alkylamino; and

each Group β is independently selected from: nitro, aryloxy, lower cycloalkyl, lower cycloalkyloxy, lower alkylenedioxy, halogen, hydroxyl, optionally hydroxyl- or fluorine-substituted lower alkyl and optionally fluorine-substituted lower alkyloxy.

34. (Previously Presented) The compound according to Claim 33, wherein R^{1a} is hydrogen, methyl or hydroxyl; and pharmaceutically acceptable salts thereof.

35. (Previously Presented) The compound according to Claim 33, wherein R^2 is hydrogen, methyl, ethyl, n-propyl or isopropyl; and pharmaceutically acceptable salts thereof.

36. (Previously Presented) The compound according to Claim 33, wherein both R^{3a} and R^{3b} are hydrogen atoms; and pharmaceutically acceptable salts thereof.

37. (Previously Presented) The compound according to Claim 33, wherein R^{4a} and R^{4b} are selected from the group consisting of hydrogen, fluorine and hydroxyl;
and pharmaceutically acceptable salts thereof.

38. (Previously Presented) The compound according to Claim 33, wherein R^{5a} and R^{5b} are hydrogen or methyl; and pharmaceutically acceptable salts thereof.

39. (Previously Presented) The compound according to Claim 33, wherein each R^6 is hydrogen;
and pharmaceutically acceptable salts thereof.

40. (Previously Presented) The compound according to Claim 33, wherein Y^1, Y^2, Y^3 and Y^4 are selected from the group consisting of –CH–, –CF–, $-C(NHCOCH_3)-$, $-C(NHCOC_2H_5)-$ and –N–;
and pharmaceutically acceptable salts thereof.

41. (Previously Presented) The compound according to Claim 33, wherein the rings in the cyclic groups represented by CY are selected from the group consisting of cyclopentane ring, cyclohexane ring, pyrrolidine ring, morpholine ring, piperazine ring, piperidine ring, benzene ring, dihydropyridine ring, pyridine ring, pyrazine ring, pyrimidine ring, pyrrole ring, pyrazole ring, imidazole ring, triazole ring, oxazole ring, oxadiazole ring, tetrazole ring, oxazolidine ring, and thiazole ring;
and pharmaceutically acceptable salts thereof.

42. (Previously Presented) The compound according to Claim 33, wherein CY is a substituent selected from the group consisting of phenyl, 4-fluorophenyl, 4-chlorophenyl, 3,4-difluorophenyl, 4-methoxyphenyl, 4-tolyl, 4-trifluoromethylphenyl, pyridinyl, pyridin-3-yl, pyrazinyl, pyrimidinyl, 6-fluoropyridin-3-yl, 2-fluoropyridin-4-yl, 6-trifluoromethylpyridin-3-yl, 6-methoxypyridin-3-yl, pyrrol-1-yl, pyrazolyl, imidazolyl, 2-methylimidazolyl, 4-methylimidazolyl, 1,2,3-triazol-1-yl, 4-methyl-1,2,3-triazol-1-yl, 1,2,4-triazol-1-yl, 1,2,3,4-tetrazol-1-yl, 1,2,3,4-tetrazol-2-yl, thiazolyl, pyrrolidin-1-yl, piperidinyl, 2-piperidon-1-yl, 2-pyridon-1-yl, 2-pyrrolidon-1-yl, oxazolidin-2-on-1-yl, 4-methanesulfonyl-piperazin-2-on-1-yl, cyclopentyl, and cyclohexyl;
and pharmaceutically acceptable salts thereof.

43. (Previously Presented) The compound according to Claim 33, wherein the aromatic ring in mono- or bi-cyclic aromatic carbocyclic group or aromatic heterocyclic group represented by Ar is selected from the group consisting of benzene ring, pyridine ring, pyrazine ring and pyrimidine ring;

and pharmaceutically acceptable salts thereof.

44. (Previously Presented) The compound according to Claim 33, wherein Ar is a substituent selected from the group consisting of phenyl, 4-fluorophenyl, 3,4-difluorophenyl, 4-chlorophenyl, 4-methoxyphenyl, 4-tolyl, 4-trifluoromethylphenyl, pyridinyl, 6-fluoropyridin-3-yl, 6-trifluoromethylpyridin-3-yl, and 6-methoxypyridin-3-yl;
and pharmaceutically acceptable salts thereof.

45. (Previously Presented) The compound according to Claim 33 selected from the group consisting of:

(1) 2-(3,4-difluorophenyl)-2-(2-oxo-1-pyrrolidinyl)-N-[3-(spiro[5- fluoroisobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

(2) 2-(3,4-difluorophenyl)-N-methyl-2-(1H-1,2,3-triazol-1-yl)-N- [3-(spiro [isobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

(3) 2-(3,4-difluorophenyl)-N-methyl-2-(2H-1,2,3,4-tetrazol-2-yl)- N-[3-(spiro[isobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

(4) 2-(3,4-difluorophenyl)-N-methyl-2-(2-oxo-1(2H)pyridinyl)-N- [3-(spiro[isobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

(5) 2-(3,4-difluorophenyl)-N-methyl-2-(2-oxo-1- pyrrolidinyl)-N- [3-(spiro[5-fluoroisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]- acetamide,

(6) 2-(3,4-difluorophenyl)-N-methyl-2-(2-methyl-1H-imidazol-1- yl)-N-[3-(spiro[6-fluoroisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]-acetamide,

(7) -(3,4-difluorophenyl)-N-methyl-2-(2-methyl-1H-imidazol-1- yl)-N-[3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'- piperidin]- 1-yl)propyl]acetamide,

(8) 2-(3,4-difluorophenyl)-2,2-dimethyl-N-methyl-N-[3-(spiro[5- fluoro-6-azaisobenzofuran-1(3H),4'- piperidin]-1-yl)propyl]acetamide

(9) 2,2-bis(6-fluoro-3-pyridinyl)-N-methyl-N-[3-(spiro[5-fluoro-6- azaisobenzofuran-1(3H),4'-piperidin]- 1-yl)propyl]acetamide,

(10) 2,2-bis(4-fluorophenyl)-N-methyl-N-[3-(spiro[5-fluoro-6- azaisobenzofuran-1(3H),4'-piperidin]- 1-yl)propyl]acetamide,

(11) 2-(3,4-difluorophenyl)-N-methyl-2-(1H-pyrrol-1-yl)-N-[3- (spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]- acetamide,

(12) 2-(4-fluorophenyl)-N-methyl-2-(1H-pyrrol-1-yl)-N-[3-(spiro- [5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]- acetamide,

(13) 2-(3,4-difluorophenyl)-N-methyl-2-(1H-pyrazol-1-yl)-N- [3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'- piperidin]- 1-yl)propyl]acetamide,

(14) 2-(3,4-difluorophenyl)-N-methyl-2-(1H-pyrrol-1-yl)-N- [3-(spiro[6-fluoro-5-azaisobenzofuran-1(3H),4'- piperidin]- 1-yl)propyl]acetamide,

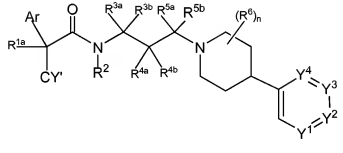
(15) 2-(3,4-difluorophenyl)-N-ethyl-2-(2-oxo-1-pyrrolidinyl)-N- [3-(spiro[isobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]acetamide,

(16) 2-(3,4-difluorophenyl)-N-ethyl-2-(4-methanesulfonyl)-2-oxo- 1-piperazinyl)-N-[3-(spiro[6-fluoroisobenzofuran-1(3H),4'-piperidin]- 1-yl)propyl]acetamide, and

(17) 2,2-bis(4-fluorophenyl)-2-hydroxy-N-methyl-N-[3-(spiro[5- fluoro-6-azaisobenzofuran-1(3H),4'- piperidin]-1-yl)propyl]acetamide,

or a pharmaceutically acceptable salt thereof.

46. (Withdrawn) A compound of structural formula I-2:



[I-2]

and pharmaceutically acceptable salts thereof, wherein:

CY' is a substituent selected from the group consisting of pyrrolyl, imidazolyl, lower alkylimidazolyl, 4-nitroimidazolyl, triazolyl, lower alkyltriazolyl, tetrazolyl, pyridonyl, 2-oxo-1-piperidinyl, 2-oxo-1-piperazinyl, 4-lower alkyl-2-oxo-1-piperazinyl, 4-lower alkylsulfonyl-2-oxo-1-piperazinyl and 4-lower alkylcarbonyl-2-oxo-1-piperazinyl;

R^{1a} is selected from: hydrogen, hydroxyl, and lower alkyl, optionally substituted with halogen;

R^2, R^{3a}, R^{3b}, R^{5a} and R^{5b} each independently are selected from hydrogen and lower alkyl, optionally substituted with halogen;,

R^{4a} and R^{4b} are each independently selected from hydrogen, halogen, hydroxyl, and optionally halogen-substituted lower alkyl;

each R^6 independently is selected from hydrogen, halogen, and optionally halogen-substituted lower alkyl;

n is selected from an integer between 1 and 8;

Y^1, Y^2, Y^3 and Y^4 each independently are selected from:

(1) methylene, optionally substituted with a substituent group selected from Group α, and

(2) nitrogen atom,

with the proviso that not all of Y^1 to Y^4 are simultaneously nitrogen atoms;

Ar a mono- or bi-cyclic aromatic carbocyclic or aromatic heterocyclic group, unsubstituted or substituted with one, two or more substituent groups selected from Group β;

each Group α is independently selected from the group consisting of: halogen, hydroxyl, amino, nitro, oxo, mono-lower alkylamino, di-lower alkylamino, optionally halogen-substituted lower alkyl, optionally fluorine-substituted lower alkyloxy, lower cycloalkyloxy, lower alkyloxycabonyl, (lower alkyloxycarbonyl)amino, (lower alkyloxycarbonyl) lower alkylamino, lower alkylcarbonyl, lower alkylcarbonyloxy, (lower alkylcarbonyl)amino, (lower alkylcarbonyl) lower alkylamino, carbamoyl, mono-lower alkylcarbamoyl, di-lower alkylcarbamoyl, carbamoylamino, mono-lower alkylcarbamoylamino, di-lower alkylcarbamoylamino, (mono-lower alkylcarbamoyl) lower alkylamino, (di-lower alkylcarbamoyl) lower alkylamino, carbamoyloxy, mono-lower alkylcarbamoyloxy, di-lower alkylcarbamoyloxy, lower alkylsulfonyl, lower alkylsulfonylamino, sulfamoyl, mono-lower alkylsulfamoyl, di-lower alkylsulfamoyl, sulfamoylamino, (mono-lower alkylsulfamoyl)amino, (di-lower alkylsulfamoyl)amino, (mono-lower alkylsulfamoyl) lower alkylamino, and (di-lower alkylsulfamoyl) lower alkylamino;

each Group β is independently selected from the group consisting of: nitro, aryloxy, lower cycloalkyl, lower cycloalkyloxy, lower alkylenedioxy, halogen, hydroxyl, optionally hydroxyl- or fluorine-substituted lower alkyl, and optionally fluorine-substituted lower alkyloxy.

47. (Withdrawn) A method of antagonizing the melanin concentrating hormone receptor in a subject in need thereof comprising administering to the subject a melanin concentrating hormone antagonizing amount of a compound according to Claim 33.

48. (Withdrawn) A method for treating a condition selected from: obesity, diabetes, hormone disorder, hyperlipidemia, gout, fatty liver, hepatitis, cirrhosis, stenocardia, acute heart failure, congestive heart failure, myocardial infarction , coronary atherosclerosis, hypertension, renal diseases, electrolyte abnormality, bulimia, emotional disturbance, depression, anxiety, epilepsy, delirium, dementia, schizophrenia, attention-deficit hyperactivity disorder, memory impairment, sleep disorders, cognitive failure, dyskinesia, paresthesias, smell disorders, morphine tolerance, drug dependence, alcoholism, infertility, preterm labor, sexual dysfunction, digestive disorders, respiratory disorders, cancer and pigmentation, in a

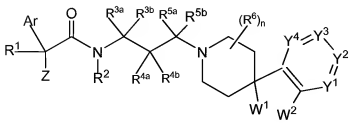
subject in need of such treatment comprising administering to the subject 0.002 – 10 mg/kg per day of a melanin concentrating antagonist compound according to Claim 33.

49. (Withdrawn) A method for treating or preventing obesity in a subject in need thereof comprising administering to the subject 0.002 – 10 mg/kg per day of a melanin concentrating antagonist compound according to Claim 33.

50. (Withdrawn) A method of antagonizing the melanin concentrating hormone receptor in a subject in need thereof comprising administering to the subject a melanin concentrating hormone antagonizing amount of a compound according to Claim 46.

51. (Withdrawn) A method for treating a condition selected from:
obesity, diabetes, hormone disorder, hyperlipidemia, gout, fatty liver, hepatitis, cirrhosis, stenocardia, acute heart failure, congestive heart failure, myocardial infarction , coronary atherosclerosis, hypertension, renal diseases, electrolyte abnormality, bulimia, emotional disturbance, depression, anxiety, epilepsy, delirium, dementia, schizophrenia, attention-deficit hyperactivity disorder, memory impairment, sleep disorders, cognitive failure, dyskinesia, paresthesias, smell disorders, morphine tolerance, drug dependence, alcoholism, infertility, preterm labor, sexual dysfunction, digestive disorders, respiratory disorders, cancer and pigmentation, in a subject in need of such treatment comprising administering to the subject 0.002 – 10 mg/kg per day of a melanin concentrating antagonist compound according to Claim 46.

52. (Withdrawn) A method of antagonizing the melanin concentrating hormone receptor in a subject in need of such antagonism comprising administering to the subject a melanin concentrating hormone antagonizing amount of a compound of general formula I:



[I]

or a pharmaceutically acceptable salt thereof, wherein:

R^1 is selected from: hydrogen, hydroxyl and optionally halogen-substituted lower alkyl, or R^1 and Z together form a 3 to 6-membered aliphatic carbocycle or aliphatic heterocycle, with the

carbon atom to which they bind, said aliphatic carbocycle or aliphatic heterocycle optionally having a substituent group selected from Group α;

R^2, R^{3a}, R^{3b}, R^{5a} and R^{5b} are each independently selected from hydrogen and optionally halogen-substituted lower alkyl;

R^{4a} and R^{4b} are each independently selected from: hydrogen, halogen, hydroxyl, and optionally halogen-substituted lower alkyl;

R^6 are each independently selected from: hydrogen, halogen, and optionally halogen-substituted lower alkyl;

n is an integer from 1 to 8;,

W^1 and W^2 either each are hydrogen, or W^1 and W^2 together form $-O-CH_2-$, $-CH_2-CH_2-$ or $-CH_2-O-$;

Z is for lower alkyl or CY, or R^1 and Z together form a 3 to 6-membered aliphatic carbocycle or aliphatic heterocycle, with the carbon atom to which they bind, said aliphatic carbocycle or aliphatic heterocycle optionally having a substituent group selected from Group α;

CY is a for a cyclic group optionally having one, two or more substituent groups selected from Group α, which cyclic group is selected from:

(1) a 3 to 10-membered aliphatic carbocyclic group,
(2) a 3 to 10-membered aliphatic heterocyclic group,
(3) a 5 or 6-membered aromatic carbocyclic group, and
(4) a 5 or 6-membered aromatic heterocyclic group;

Y^1, Y^2, Y^3 and Y^4 are each independently selected from: (1) methylene, optionally substituted with a substituent group selected from Group α, and (2) a nitrogen atom, with the proviso that not all of Y^1 to Y^4 are simultaneously nitrogen atoms;

Ar is selected from a mono- or bi-cyclic aromatic carbocyclic or aromatic heterocyclic group optionally substituted with one, two or more substituent groups selected from Group β;

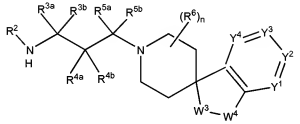
each Group α is independently selected from: halogen, hydroxyl, amino, nitro, oxo, mono-lower alkylamino, di-lower alkylamino, optionally halogen-substituted lower alkyl, optionally fluorine-substituted lower alkyloxy, lower cycloalkyloxy, lower alkyloxycabonyl, (lower alkyloxycarbonyl)amino, (lower alkyloxycarbonyl) lower alkylamino, lower alkylcarbonyl, lower alkylcarbonyloxy, (lower alkylcarbonyl)amino, (lower alkylcarbonyl) lower alkylamino, carbamoyl, mono-lower alkylcarbamoyl, di-lower alkylcarbamoyl, carbamoylamino, mono-lower alkylcarbamoylamino, di-lower alkylcarbamoylamino, (mono-lower alkylcarbamoyl) lower alkylamino, (di-lower alkylcarbamoyl) lower alkylamino, carbamoyloxy, mono-lower alkylcarbamoyloxy, di-lower alkylcarbamoyloxy, lower alkylsulfonyl, lower alkylsulfonylamino,

sulfamoyl, mono-lower alkylsulfamoyl, di-lower alkylsulfamoyl, sulfamoylamino, (mono-lower alkylsulfamoyl)amino, (di-lower alkylsulfamoyl)amino, (mono-lower alkylsulfamoyl) lower alkylamino, and (di-lower alkylsulfamoyl) lower alkylamino; and

eachGroup β is independently selected from: nitro, aryloxy, lower cycloalkyl, lower cycloalkyloxy, lower alkylenedioxy, halogen, hydroxyl, optionally hydroxyl- or fluorine-substituted lower alkyl, and optionally fluorine-substituted lower alkyloxy.

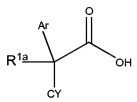
53. (Previously Presented) A method for producing a compound according to Claim 33 of general formula [I-1], which comprises:

(1) amidating a compound represented by a general formula [IIa]:



[IIa]

wherein R^2, R^{3a}, R^{3b}, R^{4a}, R^{4b}, R^{5a}, R^{5b}, R^6, Y^1, Y^2, Y^3, Y^4, W^3, W^4 and n are as in Claim 33, with a compound represented by a general formula (IIIa)



[IIIa]

wherein: Ar, R^{1a} and CY are as in Claim 33.